

Notice of Allowability

Application No.

09/912,500

Examiner

Jean E Lesperance

Applicant(s)

KIM, HAENG-SEON

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2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/6/2004.
2. ☒ The allowed claim(s) is/are 1-29.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☒ CORRECTED DRAWINGS must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☒ to Paper No. 6.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____ | 6 <input type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |



HENRY N. TRAN
PRIMARY EXAMINER

DETAILED ACTION

Allowable Subject Matter

Claims 1-29 are allowed.

Reasons for Allowance

The following is a statement of reasons for indicating the allowable subject matter: the claimed invention is directed to a flat panel display. Independent claim 1 identifies a uniquely distinct feature "a first connecting member having a data driver that converts the RSDS specification into TTL data that generates for generating a column signal when the image data, the control signal, and the gray scale voltage are applied; a second connecting member having a scan driver that generates a scan signal when the control signal and the gate on/off voltage are applied". Independent claim 6 identifies a uniquely distinct feature "a first connecting member having a data driver that generates a column signal from the image data, the control signal, and the gray scale voltage, wherein the data driver comprises a decoder to decode the encoded digital data and the encoded digital control signal into TTL data; a second connecting member having a scan driver that generates a scan signal from the control signal and the gate on/off voltage". Independent claim 11 identifies a uniquely distinct feature "a control board including a gray scale generating part, a gate voltage generation part, power supply part and connected to the flat panel display with a plurality of connecting members, wherein the plurality of connecting members include a

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plurality of column driver integrated circuits that receives RSDS signals from the encoder and decodes the RSDS signals into a TTL signal.

The prior art made of record and not relied upon is considered pertinent to applicant disclosure. Nakano et al. teach the liquid crystal display module of this embodiment also employs a digital interface as an interface with the computer side. Specifically, in this embodiment, display control signals including a clock signal CK, a display timing signal DTMG, a horizontal synchronization signal Hsync, a vertical synchronization signal Vsync, and display data (R, G, B) are sent from the computer side in accordance with a LVDS (Low Voltage Differential Signaling) scheme. Moon teaches a flat panel display system in which the interface for transmitting an image signal to a flat panel display device like a liquid crystal display module is accomplished by a low voltage differential signaling (LVDS) specification, to thereby reduce the number of components, transmission lines, and an electromagnetic interference (EMI). The closest art, Nakano et al. and Moon as discussed above, either singularly or in combination, fail to anticipate or render the above limitations obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (703) 308-6413. The examiner can normally be reached on from Monday to

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Friday between 8:00AM and 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709 .

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

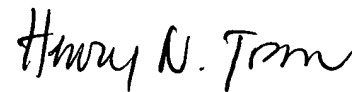
Any inquiry of a general nature or relating to the status of this application
or proceeding should be directed to the technology Center 2600 Customer
Service Office whose telephone number is (703) 306-0377.

Jean Lesperance



Date 10/20/2004

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HENRY N. TRAN
PRIMARY EXAMINER